

CLAIMS

WHAT IS CLAIMED IS:

1. A dishwasher dispensing assembly for dispensing an additive during a wash cycle of the dishwasher, said dispensing assembly comprising:
 - a reservoir for holding the additive;
 - a dispenser actuator configured to selectively open an outlet of said reservoir upon movement of said actuator; and
 - a shape memory wire adapted to contract in length upon application of an electric current thereto and to elongate upon interruption of the current thereto, said shape memory wire being connected to said actuator for causing movement of said actuator by contraction of said wire.
2. The dishwasher dispensing assembly of claim 1, said shape memory wire having a first end connected to a fixed anchor and a second end connected to said actuator.
3. The dishwasher dispensing assembly of claim 2, said actuator including a lever for rotating a shaft, said lever being connected to said shape memory wire.
4. The dishwasher dispensing assembly of claim 2, said actuator including a plunger valve having a stem connected to said shape memory wire.
5. The dishwasher dispensing assembly of claim 2, including first and second reservoirs having first and second dispenser actuators, respectively; and first and second shape memory wires adapted to contract in length upon application of an electric current thereto and to elongate upon interruption of the

current thereto, said first and second shape memory wires being connected to said first and second actuators, respectively, for causing movement of said actuators by contraction of said wires, each said shape memory wire having a first end connected to a fixed anchor and a second end connected to one of said actuators.

6. The dishwasher dispensing assembly of claim 5, one of said first and second actuators comprising a lever for rotating a shaft, said lever being connected to one of said shape memory wires; and the other of said actuators comprising a plunger valve having a stem connected to the other of said shape memory wires.

7. The dishwasher dispensing assembly of claim 1, said shape memory wire having a first end connected to a first fixed anchor and a second end connected to a second fixed anchor, and said actuator connected to said shape memory wire in nonlinear alignment between said first and second ends.

8. The dishwasher dispensing assembly of claim 7, said actuator including a lever for rotating a shaft, said lever being connected to said shape memory wire.

9. The dishwasher dispensing assembly of claim 7, said actuator including a plunger valve having a stem connected to said shape memory wire.

10. The dishwasher dispensing assembly of claim 7, including first and second reservoirs having first and second dispenser actuators, respectively; and first and second shape memory wires adapted to contract in length upon application of an electric current thereto and to elongate upon interruption of the current thereto, said first and second shape memory wires being connected to said first and second actuators, respectively, for causing movement of said actuators

by contraction of said wires, each said shape memory wire having a first end connected to a first fixed anchor and a second end connected to a second fixed anchor, and said first and second actuators connected to said first and second shape memory wires, respectively between said first and second ends of said wires, in non linear alignment with the respective ends thereof.

11. The dishwasher dispensing assembly of claim 10, one of said first and second actuators comprising a lever for rotating a shaft, said lever being connected to one of said shape memory wires; and the other of said actuators comprising a plunger valve having a stem connected to the other of said shape memory wires.

12. The dishwasher dispensing assembly of claim 1, including first and second reservoirs having first and second dispenser actuators, respectively; and first and second shape memory wires adapted to contract in length upon application of an electric current thereto and to elongate upon interruption of the current thereto, said first and second shape memory wires being connected to said first and second actuators, respectively, for causing movement of said actuators by contraction of said wires.

13. The dishwasher dispensing assembly of claim 12, one of said first and second actuators comprising a lever for rotating a shaft, said lever being connected to one of said shape memory wires; and the other of said actuators comprising a plunger valve having a stem connected to the other of said shape memory wires.

14. A dishwasher dispensing assembly, comprising:
 - a detergent reservoir for holding detergent to be dispensed during a washing cycle;
 - a detergent dispenser actuator including a lever configured to open an outlet of said detergent reservoir upon movement of said lever;
 - a rinse agent reservoir for holding rinse agent to be dispensed during a washing cycle;
 - a rinse agent dispenser actuator including a valve having a stem configured to open an outlet of said rinse agent reservoir upon movement of said stem; and
 - first and second shape memory wires adapted to contract in length upon application of an electric current thereto and to elongate upon interruption of the current thereto, one of said shape memory wires being connected to said detergent dispenser actuator for causing movement of said detergent dispenser actuator by contraction of said one of said wires, and the other of said shape memory wires being connected to said rinse agent dispenser actuator for causing movement of said rinse agent dispenser actuator by contraction of said other of said wires.
15. The dishwasher dispensing assembly of claim 14, at least one of said shape memory wires having one end thereof connected to a fixed anchor and another end thereof connected to one of said actuators.
16. The dishwasher dispensing assembly of claim 14, at least one of said shape memory wires having one end thereof connected to a first fixed anchor and a second end thereof connected to a second fixed anchor, and one of said actuators connected to said at least one of said shape memory wires intermediate said first and second ends and in nonlinear alignment between said first and second ends.

17. A method for controllably dispensing an additive to a dishwasher cycle, said method comprising steps of:

providing a dispensing assembly having at least one reservoir and an actuator configured to open an outlet of said reservoir upon movement of said actuator;

providing a shape memory wire connected to said actuator, said shape memory wire being responsive to a temperature thereof to change a length thereof; and

moving the actuator for releasing the agent from the reservoir by selectively directing an electric current to the shape memory wire and changing a length of said shape memory wire.

18. The method of claim 17, including pulling on the actuator at an end of the shape memory wire.

19. The method of claim 17, including providing fixed anchors connected to opposite ends of the wire and the actuator connected to the wire in nonlinear alignment between the anchors, and pulling on the actuator at a position intermediate the ends.

20. The method of claim 17, including rotating a lever by contracting the shape memory wire.

21. The method of claim 17, including pulling a plunger valve by contracting the shape memory wire.